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Music in ancient Mesopotamia and Egypt

Marcelle Duchesne-Guillemin

The civilization which began at Sumer developed contemporaneously with that of Ancient Egypt. As is well known, the latter was very much influenced, from the New Kingdom onward, by the Babylonian and Hittite off-shoots of the Sumerian culture. One of the most striking elements of Sumerian culture is the sudden appearance about 2600 B.C. of instruments (harps and lyres) so elaborate that they presuppose a long previous development of which no trace is left. Here it may be convenient to give some indication of the conventional chronology followed:

Mesopotamia		Egypt	
Prehistoric period	pre-3000 B.C.	Predynastic First and second dynasties	pre-3000 B.C.
Sumerian civilization Early dynastic Royal cemetery of Ur Sumero-Akkadian period 3rd dynasty of Ur	2900–2370 2600 2370–2100 2100–2000	Old Kingdom 3rd-beginning 11th dynasties Middle Kingdom 11th and 12th dynasties	,
Babylonian civilization Old Babylonian Kassite invasion and hegemony Rise of Assyrian power Assyrian empire Neo-Babylonian period Achamenia period Parthian period	2000-1600 1600 1350-1000 1000-612 612-539 539-330 250 B.CA.D. 330	Hyksos period New Kingdom 18th dynasty 19th and 20th dynasties Late period 21st-26th dynasties	1730–1562 1562–1308 1308–1085 1085–525
		Ptolemaic period	306-30 в.с.
		Roman period	1st century B.C6th century A.D.

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The instruments

The instruments may be classified following normal practice proceeding from the simplest to the most complex, into idiophones, membranophones, aerophones and chordophones (Sachs 1940).

Idiophones

Born of the desire to support man's natural feeling for dance and rhythm, this simple class of instrument must have succeeded the more primitive human actions of stamping the ground and slapping the body.

Clappers. The simplest percussion sticks are held one in each hand. In Mesopotamia they are either straight or bent like boomerangs (plate 26). Two pairs in copper from Kish are in the Oriental Institute, Chicago. Others are depicted on engraved shell plaques adorning harps, and on a Babylonian terracotta in the Louvre (inv. no. AO 12443).

In Egypt, clappers imitated a forearm, in bone or ivory, ending in a sculptured hand (plate 27).

In the second type, found only in Egypt, both clappers are held in one hand, being attached together at their base and terminating in a small human or animal head. They are depicted in one tomb of the Middle Kingdom and in some of the New Kingdom (plate 28). A third simpler type is made of a piece of flexible wood slit down the middle, except for a short section at the base, serving as a handle.

Such instruments continued in use until the Late Period, but by that time they were reduced to about 80 mm. in length and made in wood, often in the shape of little boots, fir-cones, or pomegranates. These were in time to develop into the castanets of Andalucia but already are to be found in Syria, on the third-century Hama mosaic (Duchesne-Guillemin 1975).

A fourth type has each clapper terminating in a small metal cymbal fixed to it with a nail (plate 29). It is found in the first centuries A.D., not only in Egypt but once more on the Hama mosaic, in North Africa at Carthage on mosaics, and on Roman sarcophagi. Its origin is unknown; the type appears in Iran on Sasanian silverware and survives in Byzantium and in medieval manuscripts.

Scrapers. A Sumerian terracotta in the Louvre (plate 30) shows two musicians playing scrapers. They originally held in their right hand a stick, in their left an implement with a series of notches cut in it. This instrument has been identified thanks to the discovery in the Teheran Archaeological Museum of a similar, though more elaborate, one, until recently catalogued as 'of unknown nature', and of a second specimen, also from Iran and wrongly catalogued in the Ashmolean Museum, Oxford, as a bull-roarer. These two Iranian instruments are prehistoric, dating to about 1500 B.C. They are made of clay in the shape of a slit cylinder or bottle, with an animal's head, notches perpendicular to the slit and a ring at the back (plate 31). Judging from similar ethnographic instruments in metal found notably in black Africa, the ring served to hold the cord to which was attached the little stick used to scrape the notches. Bone scrapers have been found

in Syria at Byblos. It seems probable that scrapers must have existed in ancient Egypt also.

Rattles. These exist in two categories: gourd and 'pie-crust' rattles, filled with pebbles or other small, hard objects, made of clay, sometimes in animal shapes, and found both in Mesopotamia and Egypt (plate 32).

Bunch rattles are depicted in Egypt in scenes of the Middle and New Kingdoms and called *mainit* or *menat*. This instrument is made of several rows of beads held together and attached by two chains to a long metal handle. Sachs (1940) did not recognize them as musical instruments, but one may cite a text in which the return of an important person is celebrated by the sound of the *mainit* and *sistra* (plate 33). A scene in a Theban tomb shows women brandishing a *mainit* in one hand and a sistrum in the other. Moreover, one *menat* in the Louvre has its metal pieces slightly worn off owing to their frequent concussion.

Sistra. The sistrum consisted of a handle and a frame with jingling cross-bars. It is attested in Sumer on a seal in the Louvre, with the frame in the form of a spur, as early as 2600 B.C., and on a plaque adorning one of the lyres in the Royal Cemetery at Ur, in the hand of a sitting monkey (plate 34). It is therefore earlier in Mesopotamia than in Egypt, although this has not prevented Sachs from maintaining its Egyptian origin.

Another form of sistrum consists of a rectangular bronze frame adorned on its periphery with little animals. It is attested in pre-Hittite Anatolia about 2100 B.C.

In Egypt the spur-sistrum is already present on a relief of the sixth dynasty now in Vienna. Later bronze sistra are in the British Museum, in the Louvre and in other collections. Another form, exclusively Egyptian, is in the shape of a small temple or *naos*, the walls of which have holes, with jingling cross-wires strung through them. The handle is variously adorned, very often with the head of the goddess Hathor in whose honour the instrument was played, before it was taken over by the Isis cult. The *naos*-sistrum is attested at sixth-dynasty Dendera. A good picture of it is found at Beni Hassan in a tomb of the twelfth dynasty. It may be in bronze, silver, or ivory; some, votive ones, are in enamelled porcelain (plate 35).

The third type, dating from the New Kingdom, had a horseshoe-shaped frame instead of the *naos*. Several wires slipped back and forth in the loose holes and could have jingling discs strung upon them to increase the noise. This type of sistrum spread with the Isis cult all over the Roman empire (plate 36).

Cymbals. Small, massive cymbals, probably representing originals of bronze, are depicted on a Babylonian plaque (British Museum inv. no. 91 906); the type survives in Graeco-Roman art. They are held in each hand and struck in a horizontal movement. Another form, seen on Assyrian and Hittite reliefs, is conical and struck vertically.

In Egypt, large cymbals, 150 mm. in diameter, were probably held and struck like present-day examples. They are, however, only depicted on terracottas of the Greek period. But one pair (British Museum inv. no. 6 375), is supposed to date back to 850 B.c. Another, on a Syrian bronze, from about 1200 B.c. is in the Musée du Cinquantenaire

(Brussels inv. no. e 3409). The Greek name for it was adopted in the ancient world and no Coptic name existed.

Bells. Many bells in silver or gold or bronze were in use in the Late Period in Egypt and the Near East (Rimmer 1969: 37–8). There is a large Assyrian bell, richly adorned, in the Berlin Museum.

Membranophones

A giant drum, nearly 1.70 m. in diameter, is depicted on several Sumerian reliefs, notably in the Louvre (plate 37). It was probably played on ritual occasions. A low kettle-drum, dating from the first half of the fourth millennium, is perhaps depicted on a seal impression found at Chogha Mish in Elam (plate 38). The footed-type was also used by the Babylonians (British Museum inv. no. 91 906) (plate 39). A portable drum, about 1 m. in diameter and carried with a leather thong, was known to the Hittites (plate 40).

Amongst smaller instruments, a number of round timbrels are found in all periods. There is a square one on a bronze situla of the second millennium (British Museum inv. no. 128 620) (plate 41). An arm-pit drum is depicted on the Bismya vase (plate 42). Three types of small drums were attached to the belt. One, barrel-shaped, is seen on an Elamite cylinder seal of the first millennium (Louvre inv. no. 58 2184); of the other two, used in the great Assyrian procession of Elamite musicians from Nineveh in the British Museum, one has its body straight, the other is conical, with a single nailed skin.

In Egypt, drums are relatively rare. There is none attested in the Old Kingdom. One specimen from the twelfth dynasty was found in Tomb 183 at Beni Hassan. It is cylindrical, I m. high with two hides held by strings. Only in the New Kingdom did drums become common, though never introduced into the Osiris cult. They are depicted in military or private scenes. They are barrel-shaped with two hides, and often suspended from the neck of the musician by means of a leather thong. The fact that the hides are held and tightened by means of strings or laces may point to a Nubian provenance, for this is the common type of drum in present-day Africa, whereas the Mesopotamian ones are glued or nailed. Another drum made in terracotta is the ancestor of the Arabic darbukka; the type appears on a Theban relief.

A frame drum in a scene of the twelfth dynasty is about 750 mm. in diameter and resembles the contemporaneous Hittite instrument (plate 40). More remarkable is the rectangular drum with concave sides, about 700 mm. long, of the eighteenth dynasty. Both this and the round terracotta drum have their origin in Asia (plate 43).

Neither in Mesopotamia nor in Egypt were drums, even the largest ones, ever played with a stick. This accessory, probably of Indian origin, does not appear until the Roman period in the third century A.D.

Aerophones

Flutes. In Mesopotamia the long vertical flute is attested from Sumerian times on. In Egypt it appears on a pre-dynastic (fourth-millennium B.C.) slate palette where it is played by an animal. Sachs (1940) sees here a hunter disguised as an animal to lure

game. This interpretation is, however, far from convincing; it might as well be a satirical fable like those the Egyptians were fond of in later times as in the Turin papyrus. Animals playing various instruments were depicted also in Mesopotamia, Elam and Mitani. Their inspiration seems less religious than facetious. The long flute is also depicted on reliefs of the Old Kingdom as part of orchestras. It is about 1 m. long and is held obliquely (plate 44), from which may be inferred that there was no proper mouth-piece. The finger-holes, four in number, are pierced in the lower part of the pipe. A shorter flute is shown being played almost horizontally, straight in front of the musician, which means it was either a duct flute or an oboe (plate 45). Finally the cross or transverse flute appears in the Ptolemaic period.

Clarinets. Missing in Mesopotamia, the pipe with a single vibrating tongue was very popular in pairs as early as the Old Kingdom in Egypt, where it appears to have been indigenous. Its earliest occurrence is on a relief of 2700 B.C. in the Cairo Museum. The twin pipes are coupled and their holes correspond. The instrument survives in modern Egypt under the Arabic name of *zummara*. The player stops the corresponding holes of both tubes simultaneously with one finger and as the holes, roughly cut into an uneven cane, produce slightly different pitches, the effect is a pulsating sound (Sachs 1940).

Oboes. In Mesopotamia two silver pipes, now in the University Museum, Philadelphia, have been found at Ur, one of which has four finger-holes, the other only one (cf. Rimmer 1969: 35-6).

In Egypt, it seems to have been introduced from Asia in the New Kingdom (plate 46). The sound is produced in the double mouth-piece by the vibration of two reeds. The instrument was used in pairs, could be of considerable length and was played chiefly by women.

Horns and trumpets. In Mesopotamia a pair of possible horns seems to take part in the concert depicted on the Chogha Mish seal impression (plate 38). The Hittites had short trumpets (plate 40) shown on reliefs at Eyuk and Carchemish and may be regarded as ancestors to the Jewish shofar. The ivory horn, or olifant, appears in Syria as far back as the fourteenth century B.C., where in one example in Damascus it is carved in the effigy of a woman (Duchesne-Guillemin 1969a).

In Egypt the horn is never depicted. Some specimens in terracotta have been found. They were probably reserved for signalling. Best-known is the pair, one in silver and one of bronze found in the tomb of Tut-ankh-amen (plate 47). But it also served for military purposes, as pictured for the first time about 1515 B.C. Its invention was attributed to Osiris, in whose cult it was used. Plutarch remarked that its blare was like an ass's bray. Short trumpets in gold or silver also occurred in prehistoric Iran at Asterbad and Tepe Hissar (plate 48).

Pan-pipes. A Hittite relief in the Louvre shows an instrument with six equal pipes, which must have been stopped at different levels in order to produce different pitches. The instrument, common in Greece, was introduced from there into Egypt in the Graeco-Roman period.

Organs. It was in third-century B.C. Egypt that Ctesibius, a Greek of Alexandria, invented an instrument combining the pan-pipe with a key-board. The air came from a tank in which its pressure was kept constant by a volume of water: hence the name hydraulos, meaning literally water-oboe, a name which was retained even after the water tank was superseded by another device, the pneumatic bellows. The change must have taken place before the third century A.D., for the new contraption is depicted yet again on the Hama mosaic (plate 49). The hydraulos served purely profane purposes: it was used in circus games and musical competitions. Only in the Middle Ages was it introduced into the liturgy of the church, under the name of organon or organum, meaning literally 'instrument'.

Chordophones

Harps. These are the most interesting instruments of the Ancient Near East, thanks to their elaborate structure, decoration, variety, and subsequent diffusion both westwards into the Mediterranean countries and eastwards into Asia.

(A) The Sumerian harp is bow-shaped, recalling its origin: the musical bow. The sounding-box is constituted either of the whole bow or the lower part of it. The musician holds it against his shoulder (plate 38), with the strings away from him. He plucks them with his fingers, without a plectrum. Splendid harps, adorned with gold and semi-precious stones were excavated in the Royal Cemetery at Ur (plate 50). The great number of the strings, varying from eleven to fifteen, implies a highly developed music. Some musicologists have inferred from the harps with only four or five strings depicted on seals and plaques that these were the original type and that music was in the pentatonal or tetratonal stage. But the small number of strings is more likely to have been due to the impossibility of representing more on such small-scale objects: the remains excavated show the real number of strings.

In the Babylonian period, the Sumerian harp was modified by adding a string-holder that pierces at a right angle the lower end of the body. The latter is very large and has sound-holes. The strings are very numerous and again were plucked without a plectrum (plate 51). They were adopted by the Assyrians and Persians, from whence, it has been argued, they reached China and Japan.

In Egypt the harp is the most favoured instrument. It is essentially the Sumerian type, only diversified in the dimensions of the sound-box. It is difficult to state where the instrument originated. It seems probable that the Sumero-Elamite instrument, found at Chogha Mish as early as the fourth millennium, and the Egyptian one, which began to appear under the fourth dynasty, had one and the same origin. Or can they both have evolved independently from the more primitive musical bow? A type, intermediary between the bow and the harp, has been found in modern Afghanistan, represented on a specimen in the Museum of Århus University, Denmark and another, uncatalogued, in the former Kunstkammer, Leningrad consists of a bow fixed to an oblong sounding-box. The connection is still obvious between the musical bow and the earliest Egyptian harp, with its arched neck comprising the entire length of the instrument and penetrating at the base into the half-ovoid sounding-box, which resembles the gourd

resonator attached to the ethnographic musical bow (see plate 44). As in Sumer, the strings end in fastening knobs, not to be confused with the later, rotating pegs. There are never more than nine of these. In the Middle Kingdom, the harps are covered with abundant decoration. In the New Kingdom enormous instruments have as many as eighteen strings and are played standing (see plate 46). The sounding-box now comprises the whole of the lower half of the instrument. It has not only painted motifs but sometimes also a sculptured head of a pharaoh. A second type is portable, its neck ends in a fine sculptured head, and the curve of the arch is deeply concave (plate 52). A third category, even lighter (plate 53), is called by musicologists the 'shoulder harp', carried as it is on the left shoulder. To play it the musician holds it either in that position or halfway down his arm, but with the strings still facing outwards, away from him, thus placing it within the category of the vertical harp. The sounding-box is longish: that of a specimen in the Louvre is more than 650 mm. long. Its four strings are attached to a a neck inserted under the hide which must have covered the box; notches are cut in order to avoid slipping.

Under the twenty-fifth dynasty the vertical arched harp became more and more concave, until nearly a right angle was formed between the sounding-box and the strings, but the vertical sounding-box is still at the base (plate 54).

Egypt adopted, from the fifteenth century onwards, the vertical angular harp from Babylonia. This became a type in great favour, perhaps owing to the great stability of tuning allowed by the angular structure. The magnificent specimen preserved in the Louvre (plate 55) has been X-rayed: the internal structure of the sounding-box is thus well known. This box was held against the musician's breast, its lower, tapering half between his thighs. The holder pierces the box above this tapering part. These splendid instruments have twenty-one strings, sometimes even more (Duchesne-Guillemin 1969c).

(B) A second type of Sumerian harp appears on the Bismya vase (see plate 42). Unlike the first it is held horizontally. The sounding-box is held under the left arm and is elongated into a curved neck, both forming an arch to which the strings are attached. The essential difference is that this one is played with a stock-shaped plectrum.

The horizontal harp was taken over by the Babylonians (plate 56), either without change or with the arch or bow replaced by a support stuck at an angle into the forepart of the sounding-box (plate 57). This angular horizontal harp is known in Iran contemporaneously with the Sumerian period in Mesopotamia. Later, it is commonly depicted on Assyrian and Elamite reliefs (plate 58). In its bowed-shape type it spread widely both eastwards, to India, Burma and Java, and westwards, to Minoan Crete (Duchesne-Guillemin 1968: an example in the Heraklion Museum is erroneously labelled as a boat), ancient Greece and Rome (Pompeii), but in the West it remained rare. It is totally absent from Egypt; Hickmann (1961) has misinterpreted depictions of vertical harps. Its presence in black Africa is due to the commercial relations of that continent with Indonesia in the Middle Ages.

Lyres. A lyre, in the wide sense of the term, comprising, in Greece, the kithara and the lyra, is made of a sounding-box of various shapes, from the upper side of which two arms project upwards. The extremities of the arms are joined by a cross-bar. The strings

are fastened at the base of the box, then run parallel to the front of it, over a bridge that transmits their vibration to the box, and continue between the arms to be finally twisted round the cross-bar, where their tension can be modified.

The shape of the Sumerian lyre is reminiscent of its sacred, totemic origin, for the body is that of an animal – a bull or a ram – whose head juts out, away from the player (see plate 34). There is even, on occasion, a second animal above the head, as in the Tello relief in the Louvre. The instrument is large, be it portable or standing on the ground. As early as the third millennium, the strings number up to eleven. The lyres found in the Royal Tombs at Ur are richly decorated in gold and lapis-lazuli (plate 59).

From the beginning of the second millennium onwards Babylonia preserves the Sumerian tradition of great lyres standing on the ground – as can be seen on the Larsa sherd in the Baghdad Museum and the Ishali plaque in the Oriental Institute, Chicago – but the animal shape has become rare. A Hittite vase from Inandyk in the Ankara Museum is unique in that it shows one of these enormous lyres played by two musicians simultaneously. A third type has an oblique cross-bar as with the silver lyre from Ur with a standing stag (plate 60). The type with an animal figure survives until the sixth century B.C. On a Xanthos relief Apollo plays a *kithara* adorned with animals (plate 61) supporting the arguments for the Sumerian origin of the Greek *kithara* (Duchesne-Guillemin 1967).

There is also in Babylonia a smaller, rounded instrument, held either vertically or horizontally. On the basis of a representation in the Louvre (inv. no. 6 780), it was played with a small almond-shaped plectrum. From this fact some musicologists infer that the lyre was West Semitic in origin, since the small horizontal lyres are first seen in Egypt in the hands of a Syrian nomad depicted in a Beni Hassan tomb of the twelfth dynasty.

In the first millennium, a fourth shape of small lyre, characterized by an oblique cross-bar and asymmetric, contorted arms, appears with the Hittites and the Assyrians; it may have originated in prehistoric Palestine. A bronze plaque of Phoenician origin, found in Luristan and now in the Archaeological Museum, Teheran, shows a procession of musicians playing that type of instrument, a form never adopted by the Greeks.

In Egypt the lyre is a foreign instrument. It first appears, as has just been mentioned, in the hands of a Syrian nomad. It is rectangular and usually played with a plectrum. A few centuries later the lyre was fully adopted. It shows more elaborate forms, sometimes light and elegant with gracefully contorted arms, sometimes more massive with a rectangular box and a protruding bar at the base for attaching the strings. Some animal ornaments on the arms recall Mesopotamia. Similarly the bow-shaped holder of a large lyre in the Rijksmuseum van Oudheden, Leiden, has its parallel, or its model, in the great Babylonian lyre of the Ishali clay plaque. The El Amarna paintings show huge instruments, one of which seems to require two musicians. This compares with the Hittite instrument found at Inandyk described above. It is quite possible, given the political and cultural connections between the Hittites and Egypt, that this type was brought from Anatolia to the Nile valley. Perhaps under the influence of the Palestinian type, some Syrian lyres were modified: one of the arms gets shorter and shorter, the cross-bar more and more slanting, and the strings more and more unequal. This type

is frequently depicted in Phoenicia and Assyria, where it sometimes appears along with the traditional, symmetrical type (plate 62).

Lutes. A lute has a long neck protruding from the sounding-box. The strings are parallel to the latter, as in the lyre. Moreover, pressure from the fingers on the strings at different levels along the neck shortens at will their vibrating length. Its origin is obscure, but certainly not Sumerian despite two representations. Iran is a possibility because many lutes are represented on terracottas or cylinder seals from Susa. The Babylonian documents show two types of lute. One, rustic, with a very long handle and a small, oval sounding-box as on a cylinder seal in the Louvre (plate 63); the other is shorter with a more voluminous, nearly rectangular sounding-box (plate 64).

The lute entered Egypt only in the fifteenth century, coming from Asia (plate 52). It has two types of sounding-box: one oval, the second very elongated. Somewhat later it was in favour with the Hittites, who had a third, more elaborate type, the precursor of the modern guitar with frets on the handle and sharing its peculiar shape of body. Generally the ancient lutes have only two or three strings.

Psalteries. A psalterion has its strings parallel to the sound-box and co-extensive with it. It makes its appearance in the eighth century on the evidence of a Phoenician ivory found in Assyria (British Museum inv. no. 118 179).

The general nature of ancient music in Mesopotamia and Egypt

Mesopotamia

Numerous ancient texts indicate the importance of music in Mesopotamian life, the names of musical instruments, and last but not least, an elaborate musical theory.

- 1. In Sumer, music was widely used in religious ceremonies and in funerary ritual as at Ur. The musicians belonged to the temple staff and formed a hierarchy. At Mari a certain Ur-Nanshe was honoured with a statue (now in the Louvre). Scenes with animals playing music, even though they may illustrate only fables or proverbs, suggest the existence of a kind of profane music. On the Assyrian reliefs we see music associated with war and royalty.
- 2. Few of the numerous words designating musical instruments are identified with certainty. A Sumerian pictogram proves that the vertical bow-harp was called *balang* or *balag*. The horizontal harp was probably the *algar* from Elam. The lyre may have been called in Sumerian *zami*, in Babylonian *sammu*, in Hittite *zinar*. A picture of a Babylonian drum has the word *lilissu*. One aerophone, perhaps a form of oboe, was called *embubu*.
- 3. Until November 1962 nothing was known of Babylonian musical theory. Since then a series of discoveries have begun gradually to reveal the existence of a definite system as early as the eighteenth century B.C. It possibly went back even further, to the Sumerians, for the Babylonians inherited many traits from their culture. The music was heptatonic and, as later in Greece, there were seven scales and modes. A Babylonian fragment tells how to pass from one to another on a nine-stringed instrument.

In 1969 it was found that one of the cuneiform tablets excavated at Ugarit (Ras Shamra) contained, written underneath a hymn in Hurrite in a barbaric Akkadian script, a succession of musical terms identified as Babylonian. This was presumably a musical notation. Three attempts have been made so far at reading this musical score, including one by the present writer (cf. Kilmer 1971; Duchesne-Guillemin 1977).

Egypt

Names of musical instruments are fairly well known owing to the hieroglyphic inscriptions accompanying the paintings, but they are rather vague: for instance the word *mat* designates the flute as well as the clarinet. No document has yielded any indication about the music, either theoretical or practical. Ancient music may have survived to some extent in that of the tribes of the Upper Nile or in oases such as that of Siwa. This might be suggested by some satirical songs dealing with animals, in the line of fables and scenes depicted on papyri and ostraca. They have been recorded by Hans Hickmann, a more positive contribution than the hypotheses he has put forward in numerous publications about the so-called chironomy and the play of musical instruments. Sachs' early polyphonic theory, based on pictures of harpists, is without foundation, for it cannot be proved that both hands of the harpist struck any two strings simultaneously, while his further theory of the pentatonic basis of ancient oriental music has been disproved by the discovery of the heptatonic system in ancient Mesopotamia.

It is almost certain that Egyptian music, if not already heptatonic and modal, became so in the New Kingdom under Asian influence. This is confirmed by allusions in late Greek authors such as Dio Cassius and by the study of the Siwa songs. It does not preclude, however, the survival of very ancient pentatonic or hexatonic melodies.

54 av. de l'Observatoire 23.v.1980 Liège Belgium

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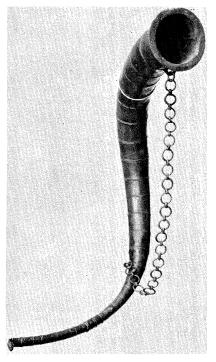
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Abstract

Duchesne-Guillemin, M.

Music in ancient Mesopotamia and Egypt

Almost all categories of instruments were represented in Mesopotamia and Egypt, from clappers and scrapers to rattles, sistra, flutes, clarinets, oboes, trumpets, harps, lyres, lutes, etc. As early as 2600 B.C. harps and lyres are attested at Ur. In the New Kingdom, Egypt borrowed several instruments from Mesopotamia: the angular vertical harp, square drum, etc. The organ, invented in Ptolemaic Egypt, is first attested in its new, non-hydraulic form in the third century A.D. Hama mosaic. Musical theory, based on the heptatonic system with seven scales and modes is found in Mesopotamia as early as the eighteenth century B.C. This theory is reflected in a musical score written beneath a Hurrite hymn of the fourteenth century B.C.



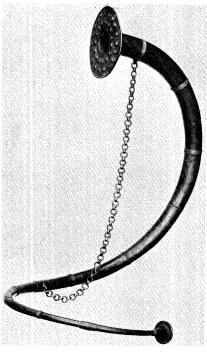


Plate 23 (far left) Gullakrå, Skåne. Bronze Lur. (Photo: Univ. Hist. Mus., Lund) Plate 24 (left) Folvisdam, Tyrsting. One of pair of bronze lurs. (Photo: National Museum,

Copenhagen)

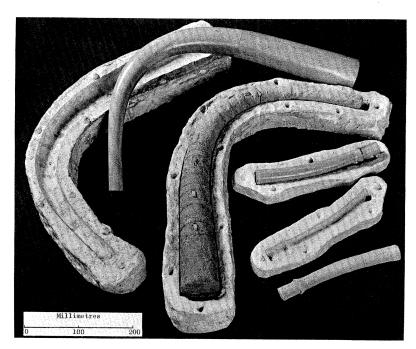


Plate 25 Patterns, moulds and cores used in experimental casting work to produce an Irish horn of the Drumbest type (compare Plate 21)



Plate 26 Ur. Clappers on a Sumerian shell plaque. 2600 B.C. (Courtesy Trustees of British Museum)

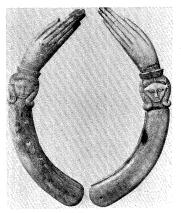
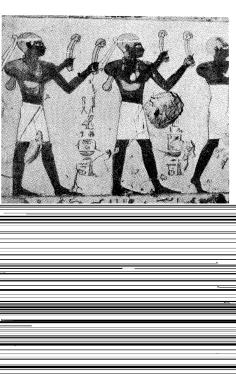


Plate 27 Egyptian clappers in shape of fore-arm. New Kingdom

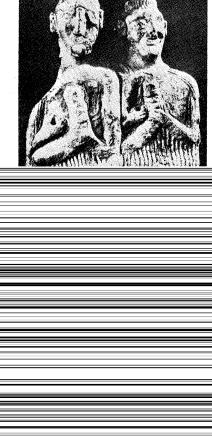


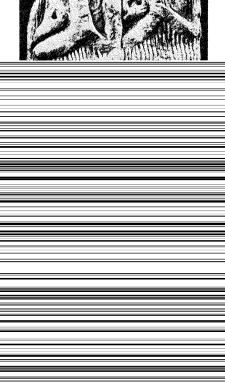


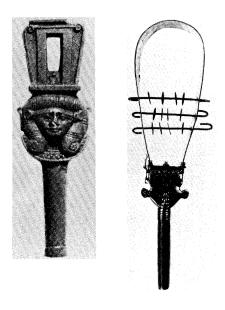


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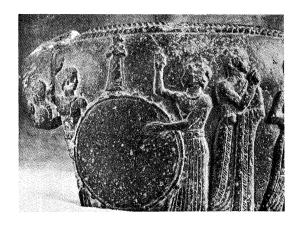


Plate 35 (far left) Naos sistrum. Egypt. Late period. (Courtesy Trustees of British Museum)

Plate 36 (left) Bronze sistrum. Egypt. Late period. (Courtesy Trustees of British Museum)

Plate 37 (above) Sumerian giant drum, 2100 B.C. (Louvre)



Plate 38 Chogha Mish. Elamite concert (kettle-drum, harp? horn. Fourth millennium)



Plate 39 Babylonian players of kettle-drum and cymbals. c. 1800 B.C. (Courtesy Trustees of British Museum)

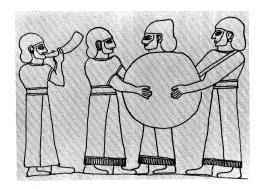


Plate 40 Carchemish. Hittite musicians with drum and horn. Ninth century B.c. (Archaeological Museum, Ankara)



Plate 41 Tepe Giyan, Iranian bronze situla with square timbrel and vertical angular harp. Early second millennium. (Courtesy Trustees of British Museum)



Plate 42 The Bismya vase: musicians with horizontal harp, armpit drum and trumpet. Third millennium. (Oriental Inst., Chicago)

Plate 43 (below, left) Egyptian rectangular timbrel. Theban tomb, New Kingdom, fourteenth century

Plate 44 (below, right) Egyptian oblique flute and harp, Old Kingdom



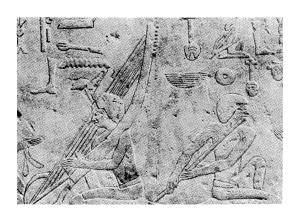
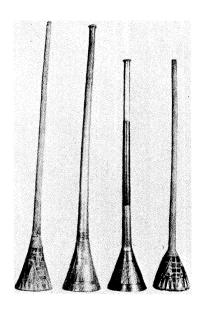


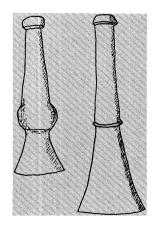


Plate 45 Egyptian horizontal pipe, Old Kingdom



Plate 46 Egyptian trio of double-oboe, lute and harp, New Kingdom





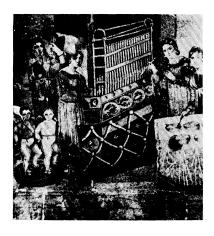


Plate 47 (left) Trumpets from the tomb of Tut-ankh-Amen. Eighteenth Dynasty (Cairo Museum)

 $Plate\ 48\ (above,\ left)$ Tepe Hissar, short silver trumpets. Second millennium

Plate 49 (above, right) Hama, Syria. Detail of pneumatic organ from mosaic. Third century A.D.

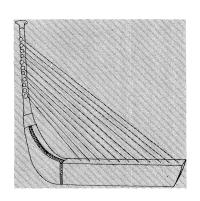




Plate 50 (far left) Ur. Reconstruction of arched harp from tomb of Queen Pu-Abi. 2600 B.C. (Courtesy Trustees of British Museum)

Plate 51 (left) Babylonian vertical angular harp. 1800 B.C. (Louvre). Compare Plate 55

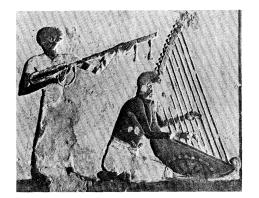


Plate 52 (below left) Egyptian duo: portable harp and lute, New Kingdom

Plate 53 (below right) Egyptian shoulder harp, New Kingdom. (Courtesy Trustees of British Museum)

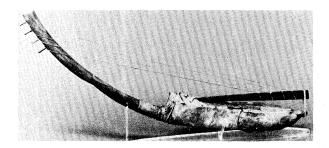




Plate 54 Egyptian 'crooked' harp. Twenty-fifth dynasty

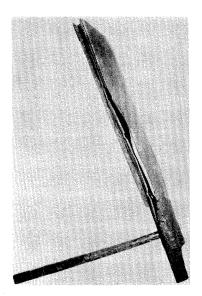


Plate 55 Egyptian specimen of vertical angular harp. New Kingdom. (Cairo Museum)



Plate 56 Babylonian horizontal harp. c. 1800 B.C. (Louvre)



Plate 57 Babylonian horizontal angular harp. c. 1800 B.C. (Louvre)



Plate 58 Nineveh. Assyrian horizontal harp. (Courtesy Trustees of British Museum)

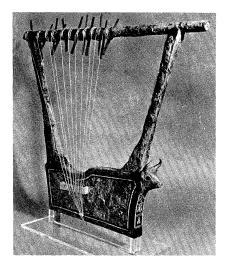


Plate 59 (far left) Ur. Silver lyre. 2600 B.C. (Courtesy Trustees of British Museum)



Plate 60 (left) Ur. Sumerian oblique lyre. 2600 B.C. (University Museum, Philadelphia)

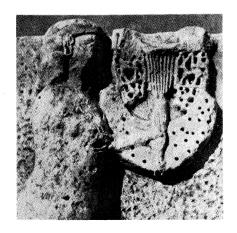




Plate 61 (far left) Xanthos, Relief, Sixth century B.C. (Istanbul Museum)

Plate 62 (left) Assyrian quartet (oblique and straight lyres, timbrel and cymbals). First millennium B.C. (Louvre)





Plate 63 (far left) Elamite lute and small rectangular lyre, cylinder seal. Fourteenth century B.C. (Louvre)

Plate 64 (left) Babylonian lute. c. 1800 B.C. terracotta. (Louvre)

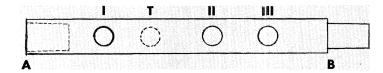


Plate 65 Upper finger-hole section of a typical aulos



Plate 66 Sections of the Reading aulos separated during restoration